

**WHITE PAPER**

Two white L-shaped brackets, one on the left and one on the right, framing the title text.

**THE NEW ECONOMICS OF  
TERMINAL EMULATION**

The new economics of terminal emulation enables organizations to cut costs from the IT infrastructure while continuing to provide users with a productive, innovative, fully de-risked and supported working environment.

Applications running on mainframes are stable, secure and efficient but are also perceived as expensive to run, expensive to train users on, expensive to support and expensive to access. Increasing pressure to cut costs is forcing organizations to choose between providing a fully supported mainframe hardware infrastructure or a fully supported and productive user community, with the majority choosing to focus on the former.

Terminal emulation is commonly regarded as a commodity with little or no strategic value, a belief fostered by analysts and industry watchers who have been predicting the demise of the mainframe for many years. While some mainframes have indeed been shut down or migrated, between 70-80% of Global 2000 companies rely on mainframes to process core business applications. This means that terminal emulators still play an important role as the gateway into these business critical applications from the desktop.

The view of terminal emulation as a non-strategic asset that does not add 'business value' makes it an obvious target when cost

cutting decisions are made. The options considered typically include switching to a low-end, low-cost emulator and cutting support and maintenance of the existing emulator. The risks involved in these options can prove more expensive than any cost saving.

Organizations that appreciate the strategic value terminal emulation software can provide have been able to balance both hardware infrastructure and terminal emulation costs to great effect – maintaining existing levels of support while ensuring that future needs are met through innovative and fully supported terminal emulators. These companies are positioning themselves for future growth while reducing costs.

### The New Economics in Action

The new economics of terminal emulation can be best illustrated through a real-world customer example: a healthcare organization operating most of its business on the mainframe. The business is reliant on the productivity of a large call center: some 14,000 operators using terminal emulation to access the mainframe application. Supporting the mainframe, the company trains an average of 2,000 new operators per year which carries major costs and therefore presents the business with valuable cost saving opportunities:

Mainframe size	350 MIPS	\$780,000 / year operating cost
Terminal emulation users	14,000	\$320,000 / year support cost
Green screen application training time	3 months per user (with an average of 2,000 users trained per year @ \$250 per trainee)	\$625,000 / year
Total		\$1,725,000 / year

A drive to reduce this sizeable cost led to important questions being asked:

- Should we reduce our training program?
- Should we cut mainframe costs?
- Should we cut support on the terminal emulators?

Clearly, each of these options carries risks: reducing the training program will negatively affect the customer experience, cutting mainframe operating costs will affect server side performance and removing support for the terminal emulator risks downtime, a reduction in user performance and reduced customer service levels.

The new economics has been designed to take these risks into account as further discussion of the example, and the company's thought processes, illustrates.

## Should we reduce our training program?

The resounding answer from the business was 'No'. Users simply have to know how to operate the systems effectively to deliver high levels of customer service. Reducing customer service levels would have a negative impact on the business. The complexity of the mainframe green screen applications presented no choice but to retain the existing training program. However, possible new approaches could help reduce costs ...

The New Economics:

Accepting that its green screen applications were complicated, the business looked at the possibility of simplifying them. Micro Focus' enterprise terminal emulation software, RUMBA®, offered a way to modernize and simplify the user experience by creating a simple Web page with pull down menus, help screens and pop-up windows to guide new users through a streamlined process.

Result: Training time was cut from 3 months down to 2 weeks.

## Should we cut mainframe operating costs?

The potential risk to server performance meant that, as with most mainframe users, the mainframe was seen as a no touch asset. Even considering changing the operating model of the mainframe was met with a resounding 'No' across the business. Growth plans called for increased processing needs and for more terminal emulation users, so processing costs could not be altered in the short term. Of equal importance was that many years of development had gone into the organization's core enterprise applications, making them a key competitive differentiator. Making provision for these growth plans led the company to first look for cuts elsewhere until it realized that there was another option ...

The New Economics:

Despite performing well both from a business perspective (competitive advantage) and technical perspective (transaction processing speed), the cost of the mainframe was seen as significant and growing. The company realized that migrating some enterprise applications from the mainframe onto the lower cost Windows platform presented a low-risk strategic alternative: transaction speeds were preserved as was the competitive advantage built into the existing business logic.

Result: 70% reduced IT operating costs and 50% greater processing capacity.

## Should we cut support on the terminal emulators?

The risk here lay in the emulators going down, preventing access to the important mainframe applications and a loss of business transaction processing. A lack of support or a reliance on a vendor ill-equipped to address critical issues such as:

- System outages
- Operating system updates
- Critical software changes
- Training
- Security updates
- Industry compliance updates

would expose the business to a range of risks. Business outages caused by having to implement service packs, hardware changes and security changes, can all impact business continuity, potentially wiping out a year's maintenance cost savings in minutes. There are opportunity risks too, as customers without terminal emulation support are not eligible for upgrades to the latest operating systems from Microsoft.

However, this was seen as the only remaining alternative for change. The company felt it had no choice but to make the decision to cut support on the emulators and put end user performance at risk. Until, on further investigation ...

The New Economics:

The company took advantage of a competitive replacement program that enabled it to exchange the lower-end, hard-to-use, unsupported terminal emulators with Micro Focus RUMBA®. RUMBA presented a streamlined user interface which slashed

training times and increased productivity. The company was able to add full support from Micro Focus while making a saving on the former vendor's costs.

Result: over 40% reduction in costs was achieved by switching from an unsupported emulator to a supported one.

What's more the company positioned itself to take advantage of innovation and productivity enhancements in terminal emulation. From simply being an application to connect to the mainframe, terminal emulation now has features to drive faster transactions, enhance security and enable productivity. The business recognized that not being supported would prevent it from taking advantage of these developments and miss future opportunities for growth.

### Where Are They Today?

The reality of the new economics of terminal emulation enabled this organization to reduce its operating costs while providing a fully modernized, lower cost, lower risk solution to its business needs.

The decision to move to Micro Focus RUMBA has enabled the organization to take full advantage of a lower cost model, while at the same time providing a strategically smart terminal emulation

solution, resulting in a modernized environment as well as significantly lowered support and training costs.

Mainframe costs have been reduced by migrating certain enterprise applications to Windows servers without the need to change application or business logic. This has kept growth plans intact while cutting costs to maintain current and future profitability. Additionally the company has been able to accomplish all of its goals without risk and gained additional processing capacity for the future. Just as the new Windows platform provides greater capacity for growth, the Micro Focus RUMBA assets will grow as additional capacity is needed thanks to an unlimited use license.

Using technology developed over 30 years and used by over 30 million people worldwide, the users enjoy a streamlined user interface and the business benefits from lowered mainframe operating costs without risk or any change to existing business logic. The cost savings and productivity gains has allowed for a continuous improvement cycle that has been repeated across other lines of business, generating additional cost savings and benefits.

	Activity	% savings	Benefits
Mainframe size	Migrated mainframe to Windows platform	70% decrease in operating costs	50% greater processing capacity
Green screen application training time	Reduced from 3 months to 2 weeks	80% reduction	Faster, more streamlined training program, improving customer service, enabling better coverage and rapid growth phases for the business
Terminal Emulation users	Terminal emulation replacement program with support	40% savings in support costs	More strategic emulator with room for an unlimited number of users with support for upgrades and changes.

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## Summary

The 'old thinking' has given way to the new economics of terminal emulation. Previously business leaders faced compromising on performance, customer service and productivity to achieve business goals, cut costs and make provision for growth. The new economics for terminal emulation, embodied in Micro Focus RUMBA, removes the need for compromise and positions businesses to take advantage of new technology, improved performance and enhanced security. Business leaders no longer have to make sacrifices to meet business goals. The new economics of terminal emulation enables organizations to cut costs from the IT infrastructure while at the same time providing users with a productive, innovative, more usable, and supported working environment.

## About Micro Focus

Micro Focus, a member of the FTSE 250, provides innovative software that allows companies to dramatically improve the business value of their enterprise applications. Micro Focus Enterprise Application Modernization and Management software enables customers' business applications to respond rapidly to market changes and embrace modern architectures with reduced cost and risk.

**For additional information please visit: [www.microfocus.com](http://www.microfocus.com)**

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